WHAT IS CLAIMED IS:

1. Convective heat trap apparatus comprising:

a tubular body extending along an axis; and

first and second axially spaced apart resilient flapper structures carried by said body and having portions transversely extending across the interior of said body and being operative to inhibit convective fluid flow therethrough, said flapper structure portions being axially deflectable about circumferentially offset hinge locations adjacent the interior side surface of said body.

2. The convective heat trap apparatus of Claim 1 wherein:

said hinge locations are circumferentially offset from one another by an angle of about 180 degrees.

3. The convective heat trap apparatus of Claim 1 wherein:

said resilient flapper structure portions, when in undeflected orientations, define circumferentially extending gaps between said flapper structure portions and the interior side surface of said tubular body.

4. The convective heat trap apparatus of Claim 1 wherein:

said tubular body has an outwardly projecting end flange portion with a noncircular rotational driving structure formed on an outer side thereof.

5. The convective heat trap apparatus of Claim 4 wherein:

said noncircular driving structure formed on said end flange is a noncircular driving recess formed in said outer side of said end flange.

6. The convective heat trap apparatus of Claim 5 wherein:

said outwardly projecting end flange portion is integrally formed with the balance of said tubular body.

7. The convective heat apparatus of Claim 1 wherein:

said tubular body is a cold water inlet dip tube for a water heater.

8. The convective heat trap apparatus of Claim 1 wherein:

said apparatus further comprises a cold water inlet dip tube for a water heater, said dip tube having an upper end portion coaxially receiving said tubular body.

9. The convective heat trap apparatus of Claim 1 wherein:

said tubular body has axially spaced apart first and second annular exterior side surface grooves circumscribing said axis, and circumferentially spaced slots respectively extending radially inwardly through said first and second grooves into the interior of said tubular body, and

each resilient flapper structure has an annular outer ring portion received in one of said first and second grooves, and an interior, resiliently deflectable central portion transversely extending across the interior of said tubular body and joined to an associated outer ring portion by a tab portion extending through one of said slots.

10. The convective heat trap apparatus of Claim 1 wherein:
said convective heat trap apparatus is a water heater heat trap.

11. Convective heat trap apparatus comprising:

a tubular body extending along an axis; and

first and second axially spaced apart resilient flapper structures carried by said body and having portions transversely extending across the interior of said body and being operative to inhibit convective fluid flow therethrough, said resilient flapper structure portions, when in undeflected orientations, defining circumferentially extending gaps between said flapper structure portions and the interior side surface of said tubular body.

12. The convective heat trap apparatus of Claim 11 wherein:

said convective heat trap apparatus is a water heater heat trap.

13. Convective heat trap apparatus comprising:

a tubular body having a slot extending radially inwardly through a side wall portion thereof into its interior;

a generally tubular exterior resilient seal coaxially extending around said tubular body over said slot; and

a resilient flapper structure transversely extending across the interior of said body and being connected to said seal through said slot, said resilient flapper structure having a flat configuration with an axial thickness substantially less than the axial length of said seal.

14. The convective heat trap apparatus of Claim 13 wherein:

said convective heat trap apparatus is a water heater heat trap.

15. A water heater comprising:

a tank adapted to store a quantity of water and having water inlet and outlet openings;

heating apparatus for heating water stored within said tank; and

first and second heat traps respectively associated with said water inlet and outlet openings and operative to inhibit convective water outflows therethrough, each of said first and second heat traps including:

a tubular body extending along an axis, and

first and second axially spaced apart resilient flapper structures carried by said body and having portions transversely extending across the interior of said body, said flapper structure portions being axially deflectable about circumferentially offset hinge locations adjacent the interior side surface of said body.

16. The water heater of Claim 15 wherein:

said hinge locations in each of said first and second heat traps are circumferentially offset from another by an angle of about 180 degrees.

17. The water heater of Claim 15 wherein:

said resilient flapper portions, when in undeflected orientations, define circumferentially extending gaps between said resilient flapper portions and the interior side surface of their associated tubular body.

18. The water heater of Claim 15 wherein:

each of said tubular bodies has an outwardly projecting end flange portion with a noncircular rotational driving structure formed on an outer side thereof.

19. The water heater of Claim 18 wherein:

said noncircular driving structure formed on said end flange is a noncircular driving recess formed in said outer side of said end flange.

20. The water heater of Claim 19 wherein:

said outwardly projecting end flange portion is integrally formed with the balance of said tubular body.

21. The water heater of Claim 15 wherein:

one of said tubular bodies is a cold water inlet dip tube.

22. The water heater of Claim 15 wherein:

said water heater further comprises a cold water inlet dip tube extending inwardly through said water inlet opening, and

said first heat trap is coaxially received in said cold water inlet dip tube.

23. The water heater of Claim 15 wherein:

each tubular body has axially spaced apart first and second annular exterior side surface grooves circumscribing said axis, and circumferentially spaced slots respectively extending radially inwardly through said first and second grooves into the interior of said tubular body, and

each resilient flapper structure has an annular outer ring portion received in one of said first and second grooves, and an interior, resiliently deflectable central portion transversely extending across the interior of said tubular body and joined to an associated outer ring portion by a tab portion extending through one of said slots.

24. The water heater of Claim 15 wherein:

said water heater further comprises connection spuds externally connected to said tank at said water inlet and outlet openings, support cup members extending inwardly through said water inlet and outlet openings, and tubular seal members outwardly circumscribing said first and second heat traps and sealingly engaging their associated connection spuds and support cup members.

25. The water heater of Claim 24 wherein:

said tubular bodies have flange portions threaded into said connection spuds.

26. A water heater comprising:

a tank adapted to store a quantity of water and having water inlet and outlet openings;

heating apparatus for heating water stored within said tank; and

first and second heat traps respectively associated with said water inlet and outlet openings and operative to inhibit convective water outflows therethrough, each of said first and second heat traps including:

a tubular body extending along an axis, and

first and second axially spaced apart resilient flapper structures carried by said body and having portions transversely extending across the interior of said body, said flapper structure portions being axially deflectable relative to said tubular body and, when in an undeflected orientation, defining circumferentially extending gaps between said flapper structure portions and the interior side surfaces of their associated tubular bodies.

27. The water heater of Claims 26 wherein:

said water heater further comprises connection spuds externally connected to said tank at said water inlet and outlet openings, support cup members extending inwardly through said water inlet and outlet openings, and tubular seal members outwardly circumscribing said first and second heat traps and sealingly engaging their associated connection spuds and support cup members.

28. The water heater of Claim 27 wherein:

said tubular bodies have flange portions threaded into said connection spuds.

29. A water heater comprising:

a tank adapted to store a quantity of water and having a water flow opening therein;

heating apparatus for heating water stored within said tank; and

a convective heat trap associated with said water flow opening and including:

a tubular body having a slot extending radially inwardly through a side wall portion thereof into its interior;

a generally tubular exterior resilient seal coaxially extending around said tubular body over said slot; and

a resilient flapper structure transversely extending across the interior of said body and being connected to said seal through said slot, said resilient flapper structure having a flat configuration with an axial thickness substantially less than the axial length of said seal.